DOCUMENT RESUME

ED 206 108 EA 013 910

AUTHOR Hord, Shirley M.; And Others
TITLE Anatomy of Incident and Tactic Interventions: Dimensions, Design.
PUB DATE Apr 80
NOTE 33p.; Paper presented at the Annual Meeting of the American Educational Research Association (Boston, MA, April 7-11, 1980).

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adoption (Ideas); *Classification; Data Analysis; Educational Change; *Educational Innovation; Elementary Secondary Education; Ethnography; Higher Education; *Intervention; *Measurement Techniques; Research Methodology
IDENTIFIERS *Concerns Based Adoption Model

ABSTRACT

In researching educational change, an analytical tool for analyzing and coding change process interventions has been produced. This paper describes the development of the coding system, the intervention assumptions underlying it, the dimensions and kinds of interventions, with illustrative examples of each, activities for clustering some interventions, and suggests implications of use of the schema by researchers, policy makers and practitioners. With this tool, conceptual and operational distinctions among interventions can be made. Researchers can analyze characteristics and types of interventions and compare their effects, and practicing change agents can more effectively structure interventions in a change effort. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED206108

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ANATOMY OF INCIDENT AND TACTIC INTERVENTIONS: DIMENSIONS, DESIGN

Shirley M. Hord

Gene E. Hall

Patricia Zigarmi

Research on Concerns-Based Adoption Project
Research and Development Center for Teacher Education
The University of Texas at Austin

Spring 1980

Paper presented at the annual meeting of the American Educational Research Association, Boston, April, 1980

EA 013 910

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
S.M. Hord
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ANATOMY OF INCIDENT AND TACTIC INTERVENTIONS: DIMENSIONS, DESIGN[1, 2]

Shirley M. Hord
Gene E. Hall
Patricia Zigarmi
Research and Development Center for Teacher Education
The University of Texas at Austin

Change can occur. In order that agents of change may facilitate its occurrence, having some ideas about what to do and when is critical. To gain understanding of possible interventions and to begin to understand their effects, a classification system is needed.

As a part of our research, an Intervention Taxonomy is being developed. Levels have emerged as one major factor for classifying interventions. In order to characterize types of interventions within each level, the dimensions on which they differ have also been considered. The latter step is the focus of this paper which reports on a system for describing and coding Incident and Tactic level interventions.

INTRODUCTION

For the past five years the Research on Concerns-Based Adoption Project at the Research and Development Center for Teacher Education at The University of Texas at Austin has engaged in research on change in schools and colleges. The goals of this work, funded by the National Institute of Education, are to acquire detailed understanding of how the adoption of educational innovations

---

[1]The research described herein was conducted under contract with the National Institute of Education. The opinions expressed are those of the authors and do not necessarily reflect the position or policy of the National Institute of Education. No endorsement by the National Institute of Education should be inferred.

[2]We wish to acknowledge the following CBAM colleagues who contributed to the work reported in this paper: Archie George, Marcia Goldstein, Teresa Griffin, Susan Loucks, Beulah Newlove, and William Rutherford.

takes place, how to facilitate this adoption, and how the process of change affects individuals who must actually implement those innovations.

As a result of past study, key dimensions of the Concerns-Based Adoption Model (CBAM), which focuses on the individual in the process of change, have been tested and initially validated. The concepts of Stages of Concern (Hall & Rutherford, 1976), Levels of Use (Hall, Loucks, Rutherford & Newlove, 1975), and Innovation Configurations (Hall & Loucks, 1978) have been studied. These concepts describe what happens to the individual and the innovation as a change effort unfolds. Procedures have been developed which permit researchers and change facilitators to diagnose an individual's concerns and use, as the individual is involved in innovation adoption. Other procedures have been tested for documenting how the innovation is adopted. In its entirety the CBAM model proposes that after diagnosis, facilitating interventions should be made. We are hypothesizing that these interventions should be "concerns-based" and thereby provide more personally relevant support to individuals and contribute to more effective implementation. As a next step toward development of a prescriptive model the CBAM staff have been engaged in research on interventions.

Over the past three years, CBAM staff have been actively engaged in efforts to observe, document, analyze, and classify interventions drawn from case studies of change efforts and the project's own field work. One area of pursuit has been defining and analyzing the characteristics of interventions. Out of this study a definition of intervention has evolved:

> Intervention: An intervention is an action or event, or a set of actions or events, that influences use of the innovation.
>
> (Hall, Zigarmi & Hord, 1979).

Concurrently, an extensive search of the change literature was initiated to reveal what had been reported relative to interventions. Surprisingly, the literature provided little information for considering the definition and types of interventions. Although many authors have explicated theories and suggested intervention strategies, writers on change have not made it clear how to distinguish between interventions or how one would operationalize a particular intervention.

Determining ways to describe and classify interventions and their relationship to the user and the innovation are basic underpinnings of the CBAM project's long-range goal of being able to understand, diagnose, and adaptively facilitate change efforts. Thus, the project returned to the intervention study data collected by its own field-based ethnographers (Hall, et al., 1978). These raw data were analyzed and synthesized in a series of reflective sorting activities. One major outcome of this effort was an Intervention Taxonomy, which distinguishes the "levels" of interventions (Hall, Zigarmi, & Hord, 1979).

This preliminary framework for classifying interventions now includes six levels. The levels identified are Incident, Tactic, Strategy, Game Plan, Policy and Theme. This classification system aids in the conceptualization of the domain of interventions, in the cataloging of interventions in a way meaningful to both practitioners and researchers, in the compilation of information about the effects of various interventions, and in time to possibly suggest the selection of one over others.

Once levels of interventions were described and characterized by their most significant attributes, a means for looking analytically at interventions within a level and identifying their internal components was needed. Such an analytical tool would permit researchers more careful scrutiny of interventions for

coding and typing and provide change facilitators with a tool for increased understanding of how to select and design interventions.

Thus, the most recent result in the continuing development of concepts, measures, processes and products aimed at understanding and describing concerns-based change in schools and colleges is a schema for analyzing and coding interventions. This analytic tool is the subject of this paper; the paper specifically reports on the coding schema for Incident and Tactic level interventions only.

Objectives of this Paper

This paper will focus on the following objectives: (1) delineate the referents and parameters for the intervention coding schema (i.e., assumptions and rating rules); (2) report and describe the dimensions and the broad array of kinds of each dimension of Incident and Tactic interventions, with illustrative examples of each; (3) describe activites for using the coding schema to analyze interventions; and (4) suggest implications for use of the framework for researchers, policy makers and practitioners.

Data Source

Studies of the implementation of innovations in several education sites were the primary data sources utilized in this research. The CBAM Project had been involved in systematic documentation of two longitudinal studies of change: a two-year implementation of discipline strategies in a single junior high school, and a three-year study of a large school district's implementation of a revised science curriculum in eighty elementary schools. In addition, interventions from case studies in the literature were extracted for examination and reflection.

In both the junior high school study and the district-wide revised science study qualitative data were collected by ethnographers who were on-site for the expressed purpose of documenting the implementation efforts. The ethnographers were to record information on all actions or events, as they unfolded during the implementation process, that might influence the use of the innovations (Zigarmi, 1979; Hord et al., 1979; Zigarmi, Goldstein & Rutherford, 1979). The ethnographers focused on classroom teachers, counselors and central office and school-site administrators as they interacted with internal and external change facilitators. Detailed descriptions of the interventions as they occurred in the school setting were recorded. In addition, observations were made and data were collected in all other parts of the school district organization and local community which might impact the change process. The data sets resulted in descriptive narratives. These were combined into "protocols," seventy- three volumes in all, that form the pool of data from which the intervention work has been derived.

Intervention Data Analyses

The information systematically gathered by the field-based ethnographers provided the raw data of the intervention study. Monthly debriefing meetings involving the project research staff and ethnographers provided time for reflection and conceptualization of the classification of interventions (Hall, Zigarmi & Hord, 1979), and for the further description of interventions.

To begin the analysis, Incident level interventions identifed from the data base and from the change literature were printed on cards. (The definition of Incident, and Tactic, level interventions can be found in Appendix A.) "A suggestion to an individual for improvement of use" and "A meeting of staff members to organize materials" are examples of Incident level interventions. Multiple

card decks of such interventions were then utilized by the CBAM staff for various sorting activities.

While engaging in a Q-sorting type process, staff members were asked to group interventions on the basis of common characteristics which they could identify and explain. Thus, the intervention cards were sorted into subgroups according to apparent common properties. The initial focus of the work was on analyzing the smallest interventions in the taxonomy, Incidents. Continuing refinement through this kind of activity led to the identification of six "dimensions" as the key structural components of Incident interventions. Furthermore, different "kinds" of each of the dimensions were delineated. Kinds are defined as the categories within each dimension that decribe in more specific terms who interacted with whom, for what purpose, under what conditions. Subsequently, Tactic level interventions were analyzed by the same procedure and the same dimensions resulted. Figure 1 is the overall structure of the components. The reader is referred to Appendix B for a full representation of the Incident/Tactic coding schema.

Figure 1

Overall Outline of Intervention Coding Variables

Level: Incident/Tactic	Dimensions	Dimensions	Dimensions	Dimensions	Dimensions	Dimensions	Dimensions
	Kinds	Kinds	Kinds	Kinds	Kinds	Kinds	Kinds
	____	____	____	____	____	____	____
	____	____	____	____	____	____	____
	____	____	____	____	____	____	____

DIMENSIONS AND KINDS AS SUB PARTS OF INTERVENTIONS

The initial breakdown of Incident and Tactic interventions was based on identifying common properties of internal components. Over time, seven dimensions were identified:

I. SUBLEVELS -- Degree of complexity of the action.

II. SOURCES -- Person(s) who act or events that occur to influence use of the innovation.

III. TARGETS -- Person(s)/Process toward whom the intervention is directed.

IV. FUNCTIONS -- The purpose(s) of the intervention.

V. MEDIUM -- The mode or form of action between the Source and Target.

VI. FLOW -- The direction of the action.

VII. LOCATION -- Where the intervention takes place.

Categories (i.e., kinds) within each of these seven dimensions that describe in more specific detail who interacted with whom, for what purpose, under what conditions were then identified. Examples of the kinds for several dimensions follows.

I. Kinds of Sublevels of Incidents

1. Isolated -- a single action separated in space and time from other actions.

   Examples: A random encounter, a casual suggestion, sending a memo.

2. Simple -- A single action or interaction that is functionally related to other interventions.

   Example: One change facilitator tells another to visit a particular school to work with teachers to improve their use of the innovation.

3. Complex -- a set of related simple actions within a short time-frame.

   Example: a brief staff meeting during which several decisions are made.

II. Kinds of Sources

1. Clients -- persons expected to be ultimately affected by the innovation.

   Example: students.

2-4. Primary users/potential users -- people within the immediate user system who are expected to implement the innovation with clients now or in the future.

   Example: teachers, teacher aides.

   2. An individual user.

   3. Subset(s) of users
      a. as individuals
      b. as groups
      c. as a whole subset(s).

   4. All users
      a. as individuals
      b. as groups
      c. as a whole.

5. Implementation site resource people -- resource people within the implementation site who are not primary users and do not have primary responsibility for implementation, but who support the use of the innovation by providing support services to primary users.

   Examples: resource teachers, nurses, counselor.

6. Implementation site decision makers[3] -- people who supervise primary users and have the responsibility for decision-making in regard to the implementation of the innovation at the implementation site.

   Examples: principal, team leaders, assistant principal.

7. Innovation facilitators -- people with primary responsibility for the change effort.

   Examples: university consultants, curriculum specialists, teachers on special assignment for the duration of the implementation effort.

---

[3]Implementation site decision-makers can be people in permanent decision making roles in the immediate user system (i.e. the principal or department chairpersons) or they can have temporary responsibility for decision making in relation to the implementation effort (i.e. a project director or department chairperson on special assignment).

8. Immediate user system decision makers and resource people -- people in decision-making roles within the immediate user system whose decisions can influence the change effort.

   Examples: school board members, superintendent, other key people within the immediate user system.

9. Members of extended user system -- people with no direct role in relation to the change effort but who may be interested in or affected by it.

   Examples: external innovation developers, special interest groups, outside policy makers, community people.

10. Events -- happenings which influence the implementation effort.

    Examples: a snow storm.

III. Kinds of Targets

The kinds of Targets are the same as for Sources except for the addition of the change effort/process as a tenth Target. We found in our data analyses that some interventions were made that had as their Target the change process itself.

Kinds are identified for the other four dimensions in the same way. The overall dimension is represented by a Roman numeral and title. Then within each dimension a series of distinguishable kinds have been named and assigned an arabic numeral. The complete set of definitions for dimensions and kinds are included in Appendix C. Key components and their respective categories for each of the remaining levels of intervention (Strategy, Game Plan, Policy and Theme) are currently being developed by the CBAM staff.

REFERENTS FOR THE CODING SCHEMA

For the intervention coding schema to have some degree of reliability and clarity in communication, several terms had to be defined very explicitly.

Also, use of the coding schema required development of guidelines and rating rules, several of which are described next.

User System Definition

We found that the generic term user system covered too many roles and places. In order to more carefully pinpoint where an intervention occurred and the organizational role location of the actors, the user system was divided into three subsystems.

Implementation site. This term is used in the schema to refer to the location(s) or setting(s) where users operationalize the innovation. Clients, users, on-site decision makers and resource people are typically housed at the implementation site.

Immediate user system. Consists of the larger (formal or temporary) organization within which the change effort is taking place. It includes those individuals at the implementation site and persons or units providing local resources and support to the change effort, as well as others within the organizational framework who are not as directly involved in the implementation effort. Clients, users, nonusers, administrators, change facilitators, policy makers and others are within the immediate user system.

Extended user system. Encompasses the immediate user system as well as other organizations and individuals who may affect or be interested in the change effort. External resource persons, funding agencies and state or federal education departments may be part of the extended user system.

Guidelines

As the coding schema evolved, two positions guided its development. These assumptions pertain to all levels of the intervention schema. The first position directed that the kinds under each dimension should be mutually exclusive

and, in combination, as comprehensive as possible. Secondly, the fewer the number of kinds under each dimension the better.

Rating Rules

As the coding schema was developed, several rating rules were also established. This step was necessary since some of the kinds are of necessity, defined relative to others. Thus, when a set of interventions is designed or analyzed, the implementation site and immediate user system for the specific implementation effort have to be defined first.

Then, to determine a specific individual's relationship to the implementation effort some additional rules were established.

1. His or her designated or assigned role within the extended user system or immediate user system for the duration of the implementation effort should be used in slotting that person in a category. A person's formal position is less important in determining placement than their role or responsibility within the implementation effort.

2. For the person who fills two roles for the duration of the implementation effort, decide which role permits or provides the most opportunity to influence use of the innovation and place the person in that category.

   Example: Jane Jones is the principal of the school and therefore an implementation site decision maker. In a particular change effort she is also a change facilitator. The rating rule would suggest that her role which affords more influence is as implementation site decision maker.

For assigning codes to dimensions of the intervention, the staff determined that:

> Multiple codings can be utilized for the dimensions but that an effort should be made to keep the number of multiple codings to a minimum. When multiple codings are assigned, they should be sequenced in descending order of information. For multiple codings of Functions, for example, rate the dominant Function first.

USING THE CODING SCHEMA TO ANALYZE INTERVENTIONS

Once the dimensions and kinds of Incident and Tactic level interventions were developed, interventions could be coded according to the kind of each dimension they represented. Through a consensus decision-making process, the CBAM staff assigned numerical codes to examples of the Incident and Tactic level interventions that were drawn from the data base. Two Incident intervention examples are presented here for illustrative purposes.

> Intervention JCI 4: The Science Department consultant meets with teachers at school ____ to answer questions arising about multi-age grouping and to help with scheduling science units (September 15, 1976).
>
> Intervention BGI 2: The principal sends a letter to all teachers after a federal official's visit to the school letting them know that the official thought the innovation program was impressive and commendable (April, 1977).

Note that the rating rules and definitions are immediately called into play. The implementation site must be defined and distinguished from the immediate and extended user systems. The roles of individuals must be defined. Also note the issues around determining exactly which intervention is being represented. In the second example the intervention could be the official's visit, the feedback to the principal or the principal's feedback to the teachers. Some of these distinctions can only be made in the presence of the composite data set. Others are handled by the Intervention Taxonomy; for example, the complete set of actions comprising the official's visit could be classified as a Tactic. Once the intervention unit is established the coding schema can be applied. Figure 2 illustrates the coding application for the two interventions presented above.

Figure 2

Coding Incident Level Interventions

INTERVENTION	SUBLEVEL OF INCIDENTS	SOURCE	TARGET	FUNCTION	MEDIUM	FLOW	LOCATION
JCI 4	Complex	7	3a.	3	1	2	1
BGI 2	Simple	6	4a.	3	2	1	1

When a large array of interventions are coded, several different quantitative analyses are possible. The relative frequency of intervention by different Sources can be computed. The relative frequency of intervention on different Targets, the use of different Functions and Media can also be determined. This is assuming of course that the data base has equally fair sampling of all the combinations that occurred. This check in itself can be another use of the coding schema.

Another interesting, although less successful, analysis technique has been to attempt a content analysis of interventions using the coded data.

The several-digit numerals resulting from coding each intervention were keypunched and computer processed using various procedures. This activity was an effort to discover through computer analysis how various interventions might group together. Different combinations of hierarchical and non-hierarchical cluster analyses (Anderberg, 1973) were employed in an effort to delineate meaningful types of interventions. The staff then reviewed the clusters. Although the basis for each cluster could be deduced, the clusters themselves, for the

most part, did not match the staff's intuitive sense of which interventions were similar. Despite repeated attempts with various clustering techniques and a review of the numerical codes assigned each narrative description of the interventions, when the clusters were decoded (e.g., the narrative description substituted for numerical code) the clusters seemed to contain dissimilar items.

Finally, computer clustering was abandoned and the staff is attempting to cluster Tactic and Incident level interventions clinically, on the basis of their collective experience with change efforts in schools. This process also has not been as fruitful as hoped, since it is difficult to weigh the relative importance of each of the dimensions. In other words, it is difficult to know if the Function of the intervention is more important than the Source or Target as the basis for grouping. If all three are equally important, the variables to consider become overwhelming. Presently, the staff is exploring alternative methodologies for identifying "types" of interventions within a level.

IMPLICATIONS FOR USE

The Concerns-Based Adoption Model offers a unique approach to the study of change. Unlike other past and current research which is focused at the organization level, the CBAM centers on the dynamics of the individual who is experiencing the change process, within the organization or user system context. Emphasis is placed on "concerns-based" facilitation, that is, the change facilitator intervening in ways that are responsive to the needs of individuals. Many Incident and Tactic level interventions focus on the individual. The intervention coding schema described here is a tool which can be used to analyze and code interventions according to their most important characteristics. How can such a tool be useful?

For Researchers

The key components (dimensions) and variations of the components (kinds) of interventions in the coding schema were derived out of field data, from studies of interventions at several field sites. The coding schema can be applied in other research studies. The framework, with its defined dimensions, makes it possible to more tightly describe interventions and to examine their effects singly and in combination. Analyses could answer questions such as:

1. From what Source did most of the interventions come?
2. At whom were interventions targeted? Or conversely, what Targets were neglected in a particular change effort?
3. What were the Functions of the interventions; were they singular in purpose or multipurposeful? In addition, the frequency of the various Functions could be tabulated to look at how energy was spent.
4. What are the effects of certain types of Incident and Tactic interventions? How do they compare with others?
5. Did the frequency of particular Functions and Targets shift across the phases of a change effort?

Obtaining these data and using the coding schema for analysis permits the description of change efforts by their most significant or frequent attributes. Subsequently, change efforts with different emphases characterized by different types of interventions could be compared.

For Policy Makers

The change process is a very complex enterprise; there is a high number of interventions with which to contend. Analyses which provide specific data about the "who influences whom in what ways," vis-a-vis interventions, in change efforts could be exceedingly useful information for setting, implementing and evaluating policies that are designed to affect local practice.

Thus, by using the coding schema, policy makers may become better informed about the array of possible instigators or Sources that impact implementation and of the means these actors use to effect predetermined ends. They may also learn which Sources are most likely to focus interventions on which Targets in what ways. With such information, it might be possible to shift policy-level decisions to use the most influential Sources at different points along the change process.

There is increasing awareness of the large number of Incident and Tactic interventions that are part of a change. Policy makers need to acknowledge that there is a finite amount of intervention capacity available to a user system. Change facilitators and others can only do so much. Each intervention takes time and energy; each change attempt requires a large number of what individually are seen as very small interventions. Multiple concurrent changes are likely to consume more intervention capacity than exists given the very real limits on individuals and user systems.

Along this line, a research topic that should be pursued is that of the time dimension of interventions. In a finite world of twenty-four hour days a change facilitator can only make so many interventions. What are the limits and which types are more effective when?

For Practitioners/Change Facilitators

By considering the coding schema, practicing change facilitators can gain a better understanding of:

1. what components to consider in the design of interventions, and
2. how to structure them for greater effectiveness in a change effort.

They can also use the schema as a device to monitor how they spend their time.

Before a tailor can successfully design and construct a coat, he or she must know what the pieces are that go together to make one. Just as the tailor plans for the front and back panels, sleeves, and possible lapels, pockets and a collar, so also must the cut and fit of the front and back, length and fullness of the sleeves, etc. be considered. Similarly, the change facilitator, who understands and takes into account that interventions have describable components or characteristics, can more proactively and purposefully go about the task of tailoring interventions -- or planning actions to influence or support implementation.

For instance, the facilitating school principal does things to support change efforts in his/her building. The coding schema could provide a shorthand method for logging how he/she spends time, for what purpose and with whom. For the college level teacher educator who is implementing field courses in public schools, the coding schema could be utilized as a means to track and maintain contact with different Targets in such a change process.

Staff developers in schools and colleges could monitor all Targets in a change effort and construct appropriate interventions with meaningful Functions tailored to their needs. In any event, the most compelling argument to make about the coding schema is its practical application for any change facilitator who must operationalize support, training, consultation, etc. with participants in the process of change. Most facilitators have extremely limited time and resources; hopefully, this schema can help them make the most of their limited opportunities.

SUMMARY

In the CBAM project the intervention coding schema is providing a very useful heuristic device to help in developing new insights and understandings

about the intervention act. Our intermediate goal is to be able to link interventions to an *a priori* concerns-based diagnosis. We also want to link interventions to the effects they have on individuals, the innovation, the user system and the change process in general. Our long term goal is to offer concepts and procedures that will help make change easier for innovation users, aid change facilitators in being more helpful and encourage user systems in being more adaptive to changing needs.

In order to facilitate change, it is necessary to decide what to do when, that is, to select appropriate interventions. To understand what interventions are available and to begin to understand their effects, a classification system is useful. In our ongoing search for such a taxonomy, two major steps have been accomplished:

1. As interventions were analyzed from field data and case studies, a set of levels have been identified.
2. A coding schema has been developed for examining the internal components of Incident and Tactic level interventions.

To do the latter, which is the focus of this paper, it was necessary to determine on what dimensions interventions differed.

This paper has presented the background and development of an analytical tool, useful for coding and analyzing change process interventions. In addition to a description of the work from which the coding system emanated and an explication of its underlying assumptions, the "dimensions" and "kinds" of the system were reported, with illustrative examples of each. Activities utilized by the research staff for analyzing and clustering coded interventions were described, and finally implications for use of the schema by researchers, policy makers and practitioners are suggested.

The ongoing research mission of the CBAM project has been the study of change in educational settings. The development of this coding schema is an-

other building block in our effort to better understand, diagnose and facilitate the change process as it unfolds.

References

Anderberg, M. R. Cluster analysis for applications. New York: Academic Press, Inc., 1973.

Hall, G. E. & Loucks, S. F. Innovation configurations: Analyzing the adaptations of innovations. Austin: Research and Development Center for Teacher Education, The University of Texas, 1978.

Hall, G. E., Loucks, S. F., Rutherford, W. L. & Newlove, B. W. Levels of use of the innovation: A framework for analyzing innovation adoption. The Journal of Teacher Education, Spring 1975, 26(1), 52-56.

Hall, G. E., Zigarmi, P. & Hord, S. M. A taxonomy of interventions: The prototype and initial testing. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

Hall, G. E., et al. Promising practices and problems with the use of ethnography in naturalistic field research on teaching. A collection of papers presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

Hord, S. M., et al. Analysis of change agent interventions in a two-year innovation implementation effort in one junior high school. A collection of papers presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

Zigarmi, P. The implementation of a new approach to discipline in a junior high school. Austin: Research and Development Center for Teacher Education, The University of Texas, 1979.

Zigarmi, P., Goldstein, M., & Rutherford, W. L. Implementing a new approach to discipline in a junior high school: A two year study of interventions in a teacher corps project. The Journal of Classroom Interaction, 1978, 14(1), p. 19-27.

Appendix A -- Definitions of Incidents and Tactics from the Intervention Taxonomy

Appendix B -- Overview of Incident and Tactic Intervention Coding Schema

Appendix C -- Definitions of Incident and Tactic Intervention Dimensions and Kinds/Complete Coding Schema Document

Appendix A

Incident Intervention

An Incident is the smallest intervention unit and is the singular occurrence of an action or event; some Incidents aggregate into Tactics. Incidents can occur between two individuals or may be delivered to many individuals at the same time. Simple Incidents have one main idea (e.g., casual suggestion to an individual), while complex Incidents have more than one main idea (e.g., a staff meeting).

Incident Descriptors

1. is the smallest intervention unit
2. is a single action or event that has an effect associated with it
3. can be targeted at one or more individuals
4. usually covers a very small amount of time

Tactic Intervention

A Tactic is an aggregation of Incident interventions intentionally undertaken to affect attitudes toward or use of the innovation. A Tactic has an effect that is larger than or different from the effects of the individual Incidents which constitute the Tactic. Tactics can be (a) an interrelated set or collection of different Incidents (e.g., a workshop), or (b) a series of repetitions of the same Incidents (e.g., regularly scheduled team meetings).

Tactic Descriptors

1. is a chain of like Incident interventions or an interrelated aggregation of different Incidents
2. operationalizes Strategies
3. usually covers a shorter time period than a Strategy
4. usually affects many users or members of the user system but does not need to affect all of them.

Excerpted from: Hall, G. E., Zigarmi, P. & Hord, S. A taxonomy of interventions: The prototype and initial testing. Presented at the annual meeting of the American Educational Research Association, April, 1979.

Appendix B

INCIDENT AND TACTIC CODING SHEET

SUBLEVELS OF INCIDENTS

. Isolated

. Simple

. Complex

. Blank (specify)

SUBLEVELS OF TACTICS

. Single Complex

. Chain

. Blank (specify)

SOURCES

1. Clients
2. An individual user
3. Subset(s) of primary or potential users
   a. as individuals
   b. as groups
   c. as a whole subset(s)
4. All primary/potential users
   a. as individuals
   b. as groups
   c. as a whole
5. Implementation site resource people
6. Implementation site decision makers
7. Innovation facilitators
8. Immediate user system decision makers and resource people
9. Extended user system member(s)
10. Events
11. Blank (specify)

TARGETS

1. Clients
2. An individual user
3. Subset(s) of primary or potential users
   a. as individuals
   b. as groups
   c. as a whole subset(s)
4. All primary/potential users
   a. as individuals
   b. as groups
   c. as a whole
5. Implementation site resource people
6. Implementation site decision makers
7. Innovation facilitators
8. Immediate user system decision makers and resource people
9. Extended user system member(s)
10. The change effort/process
11. Blank (specify)

FUNCTIONS

1. Developing supportive organizational arrangements
2. Training
3. Providing consultation and reinforcement
4. Monitoring and evaluation
5. Communication and dissemination
6. Impeding

MEDIUM

1. Face to face
2. Written
3. Audio-visual
4. Telephone
5. Public media
6. Blank (specify)

FLOW

1. One way
2. Interactive
3. Blank (specify)

LOCATION

1. Implementation site
2. Immediate user system
   a. Central office
   b. Training site
3. Extended user system
4. Blank (specify)

Appendix C

Coding Schema for Interventions

This schema is part of the effort of the staff of the Research on Concerns-Based Adoption Project toward development of the key components and their respective categories for each of the Intervention Levels.

George, A.
Goldstein, M.
Griffin, T.
Hall, G.
Hord, S.
Loucks, S.
Newlove B.
Rutherford, W.
Zigarmi, P.

January 1980
Research and Development Center for Teacher Education
The University of Texas at Austin

CODING SCHEMA FOR INTERVENTIONS

As a result of the CBAM staff's efforts to observe, document, analyze and classify actions and events which influence individuals in their use of innovations, interventions have been defined and characterized by their most significant attributes in the Intervention Level Definitions. To further describe properties of interventions, the CBAM staff is currently engaged in the specification and definition of key components at each level of interventions -- a coding schema. At present this work is complete for Incident and Tactic level interventions (a concise one-page summary chart is included). Ultimately, work in progress on the remainder of the levels (Strategy, Game Plan, Policy, Theme) will be completed and provide the framework for looking at each level of intervention.

As a preface to the coding schema, it should be noted that in its development two positions guided the effort: the kinds or variety of each dimension (or key components) should be mutually exclusive and as comprehensive as possible; the fewer kinds under each dimension the better.

It is anticipated that this analytical tool will be useful to researchers who will be able to code characteristics and analyze types of interventions in order to study and compare change efforts. It should be of value to practicing change agents, who, understanding their components, can more effectively structure change process interventions.

Definitions

The following definitions will provide consistent understanding and application in all levels of interventions:

Implementation Site -- is the setting where users operationalize the innovation. Clients, users, on-site decision makers and on-site resource people are housed at the implementation site, where the innovation is being used.

Immediate User System -- consists of the larger (formal or temporary) organization within which the change effort is taking place. It includes those individuals at the implementation site and persons or units providing local resources or support to the change effort, as well as others within the organizational framework who are not involved in any way in the implementation effort. Clients, users, nonusers, administrators, change facilitators, policy makers and others are within the immediate user system.

Extended User System -- encompasses the immediate user system as well as other organizations and individuals who may affect or be interested in the change effort. External resource persons, funding agencies or federal or state education departments may be part of the extended user system.

Dimensions -- are the key structural components of the action or event (intervention).

Kinds -- are the categories within each dimension that describe in more specific

terms who interacted with whom, for what purpose, under what conditions.

Rating Rules

For each implementation effort, define the implementation site and user system first. Then, in determining a specific individual's relationship (as the Source or Target) to the implementation effort:

1. Use his or her designated or assigned role within the immediate or extended user system during the duration of the implementation effort in slotting that person in a category. A person's formal position is less important in determining placement than role or responsibility within the change effort.

2. For the person who fills two roles in the immediate user or extended user system during the duration of the implementation effort, decide which role permits or provides the most opportunity to influence use of the innovation and place the person in that category.

   Example: Jane Jones is both the principal of the Junior High School and (therefore) an implementation site decision maker. She is also a change facilitator. Her primary role, which affords more influence, is as an implementation site decision maker.

For assigning codes to dimensions:

1. Multiple codings can be utilized for the dimensions. Effort should be made to keep the number of multiple codings to a minimum.

2. When multiple codings are assigned, they should be sequenced in descending order of information. For multiple codings of functions, rate the dominant function first.

Dimensions and Kinds of Incident and Tactic Interventions

Dimensions

SUBLEVELS -- Degree of Complexity of the Action.

SOURCES -- Persons Who Act or Events that Occur to Influence Use of the Innovation.

TARGETS -- Person(s)/Process Toward Whom the Intervention is Directed.

FUNCTIONS -- The Purpose(s) of the Intervention.

MEDIUM -- The Mode or Form of Action Between the Source and Target.

FLOW -- The Direction of the Action.

LOCATION -- Where the Intervention Takes Place.

I. Kinds of Sublevels

A. Kinds of Sublevels of Incidents

1. Isolated -- a single action separated in space and time from other actions.

Examples: A random encounter, a casual suggestion, sending a memo.

2. Simple -- a single action or interaction that is functionally related to other interventions.

Example: One change facilitator tells another to visit a particular school after a round of interviews.

3. Complex -- a set of related simple actions within a short time frame.

Example: A brief staff meeting during which several decisions are made.

B. Kinds of Sublevels of Tactics

1. Single-Complex -- an interrelated set or collection of different incident interventions that occurs once during a relatively short time frame.

Examples: A day long workshop, a (summer) college course.

2. Chain -- an ongoing series or repetitions of the same basic incident.

Examples: Short meetings with the same group over a period of time, series of similar meetings with different groups.

II. Kinds of Sources

1. Clients -- persons expected to be ultimately affected by the innovation.

Example: students.

2-4. Primary users/potential users -- people within the immediate user system who are expected to implement the innovation with clients now or in the future.

Examples: teachers, teacher aides.

2. An individual user.

3. Subset(s) of users
   a. as individuals
   b. as groups
   c. as a whole subset(s).

4. All users
   a. as individuals
   b. as groups
   c. as a whole.

5. Implementation site resource people -- resource people within the implementation site who are not primary users and do not have primary responsibility for implementation, but who support the use of the innovation by providing support services to primary users.

Examples: resource teachers, nurses, counselor.

6. Implementation site decision makers -- people who supervise primary users and have the responsibility for decision-making in regard to the implementation of the innovation at the implementation site.

Examples: principal, team leaders, assistant principal.

7. Innovation facilitators -- people with primary responsibility for the change effort.

Examples: university consultants, curriculum specialists, teachers on special assignment for the duration of the implementation effort.

8. Immediate user system decision makers and resource people -- people in decision-making roles within the immediate user system whose decisions can influence the change effort.

Examples: school board members, superintendent, other key people within the immediate user system.

9. Members of extended user system -- people with no direct role in relation to the change effort but who may be interested in or affected by it.

Examples: external innovation developers, special interest groups, outside policy makers, community people.

10. Events -- happenings which influence the implementation effort.

Example: a snow storm.

Notes and Rationale Related to Sources

1. It is not necessary for the immediate user system resource people or the implementation site decision makers to be labeled users or nonusers. Their use or nonuse will be revealed through the functions of their actions in relation to the implementation effort.

2. Implementation site decision makers can be people in permanent decision-making roles in the immediate user system (the principal or teaching team leaders) or they can have temporary responsibility for decision-making in relation to the implementation effort.

3. The status or stature of the decision maker within the immediate user system is relatively unimportant in developing a typology of interventions and, therefore, we have not distinguished between the superintendent, school board members, curriculum directors or other administrators within the category "immediate user system decision makers." Similarly, the decisions or actions of a person in a curriculum director's position or the decisions or actions of a principal in another building in the immediate user system may have little or no effect or a great deal of effect on the implementation effort.

4. Since "effects" are not being taken into account in determining what is or is not an intervention, we also chose not to take "effects" into account in setting up these categories.

III. Kinds of Targets

NOTE: Kinds of Targets, 1-9, are the same as Kind of Sources, 1-9.

10. The change effort/process -- the array of interventions which unfold as the innovation is being implemented.

IV. Kinds of Functions

1. Developing supportive organizational arrangements -- actions taken to develop policies, plan, manage, staff, fund, restructure roles and provide space, materials and resources to establish and maintain use of the innovation.

2. Training -- actions taken to develop positive attitudes, knowledge, and skills in role performance in relation to use of the innovation through formal, structural, and/or preplanned activities.

3. Providing consultation and reinforcement -- actions taken to encourage use and to assist individuals within the user system in solving problems related to the implementation of the innovation.

4. Monitoring and evaluation -- actions taken to gather, analyze, or report data about the implementation and outcomes of the change effort.

5. Communication and dissemination -- actions taken to inform and/or gain the support of individuals or groups of individuals external to the immediate user system.

6. Impeding -- actions taken or events that occur to discourage or interrupt use of the innovation.

V. Kinds of Media

1. Face to face -- communication takes place in person.

2. Written -- communication is in written form.

3. Audio-visual -- the communication employs technological media.

4. Telephone -- communication is by way of telephone.

5. Public media -- communication is by way of newspaper, radio, T.V., journals, etc.

VI. Kinds of Flow

1. One way -- sources act on target; target may respond, but there is no interaction.

2. Interactive -- exchange of actions between source and target.

VII. Kinds of Location

1. Implementation site -- setting where users operationalize the innovation.

2. Immediate user system

   a. Central office -- administrative building(s).

   b. Training site -- location outside the implementation site, specifically identified for training purposes.

3. Extended user system -- locations outside the immediate user system.